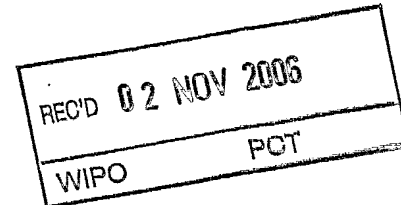



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference 030239WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US04/04786	International filing date (day/month/year) 18 February 2004 (18.02.2004)	Priority date (day/month/year) 18 February 2003 (18.02.2003)
International Patent Classification (IPC) or national classification and IPC IPC: IPC 7 H04Q H04L USPC: 455/524,456,3,514,84,73;370/329,340,230,277,278,341,321,320,335,441		
Applicant QUALCOMM, INCORPORATED		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of ___ sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 16 September 2004 (16.09.2004)	Date of completion of this report 29 September 2006 (29.09.2006)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer  JOSEPH H FEILER Telephone No. 703-305-3900	

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US04/04786

I. Basis of the report

1. With regard to the **elements** of the international application:*

- ☒ the international application as originally filed.
- ☒ the description:
pages 1-57 as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the claims:
pages 58-73, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the drawings:
pages 1-17, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages None
- ☒ the claims, Nos. None
- ☒ the drawings, sheets/fig None

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims <u>NONE</u>	YES
	Claims <u>1-85</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-85</u>	NO
Industrial Applicability (IA)	Claims <u>1-85</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Please See Continuation Sheet

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(To be used when the space in any of the preceding boxes is not sufficient)

Claims 1-85 lack novelty under PCT Article 33(2) as being anticipated by Kadaba Srinivas (US 2002/0172217).

Regarding independent claims 1, Kadaba discloses a wireless communication system, operable with a plurality of remote stations capable of transmission on a shared resource, comprising: a receiver for receiving a plurality of access requests for transmission on the shared resource from a respective plurality of remote stations; a scheduler for allocating a portion of the shared resource to zero or more of the requesting remote stations in response to the plurality of access requests, the allocation comprising zero or more individual access grants to zero or more requesting remote stations and zero or one common access grant to the remaining requesting remote stations; and a transmitter for transmitting the individual access grants to the respective remote stations on one or more individual grant channels and for transmitting the common access grant to the remaining remote stations on one or more common grant channels (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 15, Kadaba discloses a base station, operable with a remote station transmitting with permission from an access grant, comprising: a receiver for receiving a packet of data from the remote station; a decoder for decoding the received packet and determining if the received packet decoded without error; and a transmitter for transmitting to the remote station a negative acknowledgment (NAK) command when the received packet did not decode without error, an acknowledgment and grant extension (ACK-and-Continue) command when the received packet decoded without error and the access grant for the remote station is to be extended, and an acknowledgment (ACK) when the received packet decoded without error and the access grant is not to be extended (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 18, Kadaba discloses A remote station, comprising: a data buffer for receiving data for transmission; a message generator for generating an access request message when the data buffer contains data for transmission; a receiver for receiving one or more individual grant channels and one or more common grant channels from a base station; a message decoder for decoding an access grant directed to the remote station, the access grant comprising an individual grant directed on one of the one or more individual grant channels or a common grant on one of the one or more common grant channels; and a transmitter for transmitting the access request message and for transmitting a portion of data from the data buffer in response to a decoded access grant (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 42, Kadaba discloses a remote station, comprising: a message encoder for encoding an access request message, the access request message comprising at least one of an indicator of an amount of data for transmission, a supportable T/P, or a QoS indicator (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 44, Kadaba discloses a base station, comprising: a message encoder for encoding a grant message, the grant

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(To be used when the space in any of the preceding boxes is not sufficient)

message comprising at least one of a remote station identifier, a granted T/P, a long grant flag, or a QoS indicator (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 45, Kadaba discloses a grant message, comprising at least one of a remote station identifier, a granted T/P, a long grant flag, or a QoS indicator (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 46, Kadaba discloses a wireless communication system, comprising: a plurality of remote stations, each of a subset of which transmit an access request message to form a plurality of access request messages; a base station for: receiving the plurality of access request messages; allocating a shared system resource among the plurality of remote stations; and transmitting zero or more individual access grants to a subset of the requesting remote stations and zero or more common access grants to the remaining requesting remote stations (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 51, Kadaba discloses a method of access control of a shared resource, comprising: receiving a plurality of access requests for transmission on the shared resource from a respective plurality of remote stations; allocating a portion of the shared resource to zero or more of the requesting remote stations in response to the plurality of access requests, the allocation comprising zero or more individual access grants to zero or more requesting remote stations and zero or one common access grant to the remaining requesting remote stations; transmitting the individual access grants to the respective remote stations on one or more individual grant channels; and transmitting the common access grant to the remaining remote stations on one or more common grant channels (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 55, Kadaba discloses a method of access control of a shared resource, comprising, operable with a remote station transmitting with permission from an access grant, comprising: receiving a packet of data from the remote station; decoding the received packet; determining if the received packet decoded without error; and transmitting to the remote station a negative acknowledgment (NAK) command when the received packet did not decode without error, an acknowledgment and grant extension (ACK-and-Continue) command when the received packet decoded without error and the access grant for the remote station is to be extended, and an acknowledgment (ACK) when the received packet decoded without error and the access grant is not to be extended (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 71, Kadaba discloses an apparatus, comprising: means for receiving a plurality of access requests for transmission on the shared resource from a respective plurality of remote stations; means for allocating a portion of the shared resource to zero or more of the requesting remote stations in response to the plurality of access requests, the allocation comprising zero or more individual access grants to zero or more requesting remote stations and zero or one common access grant to the remaining requesting remote stations; means for transmitting the individual access grants to the respective remote stations on one or more individual grant channels; and means for transmitting the common access grant to the remaining remote stations on one or more common grant channels (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 73, Kadaba discloses an apparatus, operable with a remote station transmitting with permission from an access grant, comprising: means for receiving a packet of data from the remote station; means for decoding the received packet; means for determining if the received packet decoded without error; and means for transmitting to the remote station a negative acknowledgment (NAK) command when the received packet did not decode without error, an acknowledgment and grant extension (ACK-and-Continue) command when the received packet decoded without error and the access grant for the remote station is to be extended, and an acknowledgment (ACK) when the received packet decoded without error and the access grant is not to be extended (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 74, Kadaba discloses An apparatus, comprising: means for receiving data for transmission; means for storing the data in a data buffer; means for generating an access request message; means for transmitting the access request message; means for receiving one or more individual grant channels and one or more common grant channels from a base station; means for decoding an access grant comprising an individual grant directed on one of the one or more individual grant channels or a common grant on one of the one or more common grant channels; and means for transmitting a portion of data from the data buffer in response to a decoded access grant (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 76, Kadaba discloses A wireless communication system, comprising: means for receiving a plurality of access requests for transmission on the shared resource from a respective plurality of remote stations; means for allocating a portion of the shared resource to zero or more of the requesting remote stations in response to the plurality of access requests, the allocation comprising zero or more individual access grants to zero or more requesting remote stations and zero or one common access grant to the remaining requesting remote stations; means for transmitting the individual access grants to the respective remote stations on one or more individual grant channels; and means for transmitting the common access grant to the remaining remote stations on one or more common grant channels (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 78, Kadaba discloses a wireless communication system, operable with a remote station transmitting with permission from an access grant, comprising: means for receiving a packet of data from the remote station; means for decoding the

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(To be used when the space in any of the preceding boxes is not sufficient)

received packet; means for determining if the received packet decoded without error; and means for transmitting to the remote station a negative acknowledgment (NAK) command when the received packet did not decode without error, an acknowledgment and grant extension (ACK-and-Continue) command when the received packet decoded without error and the access grant for the remote station is to be extended, and an acknowledgment (ACK) when the received packet decoded without error and the access grant is not to be extended (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 79, Kadaba discloses a wireless communication system, comprising: means for receiving data for transmission; means for storing the data in a data buffer; means for generating an access request message; means for transmitting the access request message; means for receiving one or more individual grant channels and one or more common grant channels from a base station; means for decoding an access grant comprising an individual grant directed on one of the one or more individual grant channels or a common grant on one of the one or more common grant channels; and means for transmitting a portion of data from the data buffer in response to a decoded access grant (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 81, Kadaba discloses processor readable media operable to perform the following steps: receiving a plurality of access requests for transmission on the shared resource from a respective plurality of remote stations; allocating a portion of the shared resource to zero or more of the requesting remote stations in response to the plurality of access requests, the allocation comprising zero or more individual access grants to zero or more requesting remote stations and zero or one common access grant to the remaining requesting remote stations; transmitting the individual access grants to the respective remote stations on one or more individual grant channels; and transmitting the common access grant to the remaining remote stations on one or more common grant channels (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 83, Kadaba discloses processor readable media operable with a remote station transmitting with permission from an access grant and operable to perform the following steps: receiving a packet of data from the remote station; decoding the received packet; determining if the received packet decoded without error; and transmitting to the remote station a negative acknowledgment (NAK) command when the received packet did not decode without error, an acknowledgment and grant extension (ACK-and-Continue) command when the received packet decoded without error and the access grant for the remote station is to be extended, and an acknowledgment (ACK) when the received packet decoded without error and the access grant is not to be extended (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

Regarding claim 84, Kadaba discloses processor readable media operable to perform the following steps: receiving data for transmission; storing the data in a data buffer; generating an access request message; transmitting the access request message; receiving one or more individual grant channels and one or more common grant channels from a base station; decoding an access grant comprising an individual grant directed on one of the one or more individual grant channels or a common grant on one of the one or more common grant channels; and transmitting a portion of data from the data buffer in response to a decoded access grant (see par. 0007,0009-0012,0024-0027,0029-0030,0035-0052,0076-0090)

----- NEW CITATIONS -----